

of these cases is attributed to Linnæus, 1757, who mentions in an essay upon the strawberry the poisonous effects of the fruit, and states the chief symptom to be an eruption of the skin. Four other cases of the kind are recorded by later European writers. In all the common symptom is an eruption of the skin with a greater or less swelling of the body; but the cases differ quite materially in other respects, especially as regards the severity of the attack and the suffering of the patient. All of these foreign cases, I believe, are recorded in Allen's *Encyclopedia of Pure Materia Medica*. On this side of the Atlantic the only case recorded previous to those mentioned by myself, so far as I know, is a very interesting one which came under Dr. Millspaugh's personal observation in his own practice, and is noted in Millspaugh's *American Medicinal Plants*, Fascicle III, p. 55.

One very important difference between the six cases here alluded to and those mentioned by myself in the January GAZETTE is worthy of special note, namely, that whereas in the former, so far as stated, the poisoning always resulted from eating the fruit, in the latter the mere inhalation of the odor of the ripe fruit might, and in many instances did, cause the poisoning, without tasting or even seeing the fruit itself.

Cornell University.

A. N. PRENTISS.

In the BOTANICAL GAZETTE of January, 1888, Prof. A. N. Prentiss, of Cornell University, refers to two interesting cases of strawberry poisoning, and states that they are the only instances of which he has ever known.

Since this particular idiosyncrasy is so rare, I will furnish additional testimony in regard to a cousin of mine, formerly resident in Glens Falls, N. Y., now deceased. She had never manifested fondness for strawberries, but when about four years of age she was urged to eat some, and soon after became violently ill, the illness assuming the form of deathly stupor. Two physicians were hastily summoned, who concurred in pronouncing it a case of vegetable poison. One of them went out into the garden to find what there was to tempt the child, and, returning, said he saw nothing there but strawberries which would produce such results, and they were poisonous to his wife. The other physician said the symptoms were those described in medical books as resultant from eating that fruit, but he had never met with a case in his practice before. The conclusion was reached that the child was the victim of the strawberries of which she had been urged to partake. She naturally refrained from their use afterward, but I remember her mention of a brief but severe sickness once afterward from eating some cream which had been thrown over strawberries. Her sister informs me that later in life she would occasionally taste them without experiencing ill effects. JULIA S. HOAG.

Albany, N. Y.

CURRENT LITERATURE.

A manual of the British Discomycetes.¹

This is the title of a book of over 400 pages, giving descriptions, synonyms and bibliographic and exsiccatae references for all the fungi be-

¹ PHILLIPS, WILLIAM.—A manual of the British Discomycetes. International Scientific Series, Vol. LXI, 410 pp., 12 plates, 8 vo.

longing to this family and hitherto found in Britain. Its design is, in the words of its author, "to provide the English student with the means of acquiring a knowledge of the Discomycetes of Britain." But it will be found scarcely less useful to American students, since a very large number of the species described in it occur in this country also. In it are descriptions of nine orders, forty-nine genera, and about 600 species. The descriptions happily include the spore characters, and they are also made more complete by the addition of the habitat, and the derivation of the specific name. Under each genus and sub-genus is an analytical table of the arrangement of the species, and a "key to the species," which will greatly facilitate and simplify the labors of the student.

The systematic arrangement is greatly in advance of that of the older manuals, the species included in *Peziza* and *Helotium*, in the "Hand-book of British Fungi," being here distributed in a dozen genera and twenty-nine sub genera. A spirit of conservatism, however, runs through these changes, and the spore characters have not been given that value in the arrangement which will probably be ascribed to them by Professor Saccardo in his "Sylloge." Each genus is illustrated by figures of one or more of its species, the whole making twelve fine lithographic plates. A glossary of terms, a list of authors quoted, and a very complete alphabetical index, complete the volume. It is a most desirable acquisition to our mycological literature, and will, no doubt, fulfill the author's design in its publication, and give a fresh impetus to the study of the fungi of which it treats, not only in Britain, but also in this country.

CHAS. H. PECK.

Engelmann's works.²

Mr. Henry Shaw has put the botanical fraternity under lasting obligations to him in the magnificent book lying before us. The writings of Dr. Engelmann were so much scattered, and at the same time so important, that something like this seemed necessary. It is Mr. Shaw's third munificent gift to botany, following closely upon that of the botanic garden and the School of Botany which bear his name. The work of editing must have been exceedingly laborious, and Dr. Trelease deserves his share of our gratitude. The preface is written by Dr. Gray, and his counsel runs all through the book. A fine portrait of Dr. Engelmann and a biographical sketch fitly introduce the work. Many of the plates had to be retouched, and some of them copied, but every one able to do anything gave his assistance, and the result is something for botanists to rejoice over. The edition is limited to 250 copies, of which one-half are for presentation. The remainder will be sold in sheets, probably at \$10 a copy. This is a fitting memorial of one of our most distinguished botanists, and it augurs well for the future of botany in America that it can find such friends to further its interests.

²The botanical works of the late George Engelmann, collected for Henry Shaw, Esq. Edited by William Trelease and Asa Gray. 548 pp., 102 plates, 4to. Cambridge, Mass.: John Wilson & Son.

Plant distribution.

The foundation for the study of geographical botany seems to have been laid by Humboldt and Bonpland's "*Essai sur la Géographie des Plantes*," bearing the date of 1805. Since that time it has received considerable attention from very distinguished botanists, the bibliography of the subject showing such names as the DeCandolles, Robert Brown, Watson, Darwin, Hooker, and our lamented countryman, Prof. Gray. Probably Dr. Gray's most brilliant production was his "*Relation of the Japanese flora to that of North America*." As fascinating and important as this subject is, the older botanists were necessarily hampered by the dearth of material, but the times are now fast ripening for a study of this great department. The latest presentation of it lies before us in the shape of Drude's³ eight charts, with descriptive text. He divides the flora of the world into fourteen regions as follows: (1) Northern, (2) Central Asia, (3) Mediterranean, (4) East Asia, (5) Middle North America, (6) Tropical Africa, (7) East African Islands, (8) Indian, (9) Tropical America, (10) Cape, (11) Australia, (12) New Zealand, (13) Andes, (14) Antarctic. Each of these has its subdivisions. His dealing with the North American flora may be taken as an illustration. Nearly all of the British possessions belong to the first or Arctic group, which also includes the southern shores of the great lakes and New England, and extends down the Appalachian system into North Carolina. Central North America belongs to his fifth group, while Southern Florida and most of Mexico belong to the ninth or Tropical American group, which extends southward so as to include the bulk of South America. As an illustration of the author's subdivisions we may take the Middle North American group, which is nearly co-extensive with the United States. The subdivisions are four, viz.: (1) Californian, including the Pacific coast states; (2) Montana, including an area lying chiefly north of the 40th parallel, extending well up into British Columbia, and eastward to Minnesota; (3) North Mexico and Texas, including the areas the name implies and extending north about to the 40th parallel; (4) Virginian, commencing at the west with the prairie region and extending eastward to the Atlantic. It is easy to criticise these details, as, for instance, the boundary line between the second and third subdivisions. It is very apparent to the student of North American botany that the very characteristic Texano-Mexican flora does not extend bodily up to the 40th parallel; but these are details that can hardly be expected to be minutely accurate in such a world-wide presentation of the subject. The charts are most excellently prepared, and, of course, invaluable to any student of geographical botany.

Practical botany.

If there is anything in the so-called "practical botany" it is getting

³ DRUDE DR. O.—Atlas der Pflanzenverbreitung. (Berghaus' Physikalischer Atlas, Abtheilung V.) Gotha: Justus Perthes, 1887.

abundant chance to show itself in the numerous laboratory guides. The last one on our table is another translation of Strasburger's "Botanische Practicum,"⁴ that is, the abridged edition. In this journal the original German edition, Hillhouse's translation, and the second German edition have already been reviewed, so that nothing remains to be said concerning the subject matter of this admirable book. Two English translations were hardly necessary, and probably two were not contemplated by either translator. The translation before us is well done, but we miss the very useful list of materials needed at the beginning of each study, as well as the full list of reagents used. As for the book itself, the name of the publisher insures a book of such heavy paper and binding and expense as to very materially defeat its purpose of being a laboratory guide.

Minor notices.

THE STAINING of living nuclei is one of the latest triumphs of histology, and one that puts the cell activities within comparatively easy reach of observation. In this journal (xii, 40 and 192) Mr. Douglas H. Campbell has already shown some of his results in this direction, and now he has distributed in pamphlet reprint⁵ a full account of his experiments, conducted at Tübingen, under the title "The Staining of Living Nuclei."

A PRELIMINARY LIST of the vascular plants of the Lackawanna and Wyoming Valleys, by William R. Dudley, is published in the Proceedings of the Lackawanna Institute of History and Science, volume one. The list includes 769 species, and is compiled with the customary care of the author, and is admirably printed.

A VERY BRIEF biographical sketch of Edward Tuckerman was published in this journal shortly after his death,⁶ accompanied by a full bibliography of his scientific writings.⁷ The National Academy appointed Dr. W. G. Farlow to prepare a memoir of their associate, which has been separately printed.⁸ The sketch of Tuckerman's life is admirable—compact and sympathetic. The bibliography adds but two articles to our list, viz.: "Note on Geaster quadrifidus," *Am. Jour. Sci.* xxxvi, 380 (July, 1839), and "Vegetation in the White Mountains," in King's "The White Hills," Boston, 1860. pp. 230—241. Some reference to Mr. Willey's bibliography would not have been out of place.

THE PLANTS which produce burs or other devices for attaching their seeds or seed vessels to the hair or wool of animals, and thus securing distribution, are interesting from several points of view. A good service

⁴STRASBURGER, DR. EDUARD.—A manual of the microscope in vegetable histology; from the German by Rev. A. B. Hervey. 342 pp., fully illustrated, 8vo. Boston: S. E. Cassino, 1887.

⁵From Untersuchungen aus dem bot. Institut in Tübingen.

⁶Vol. xi, p. 73.

⁷L. c. p. 74, 182.

⁸Memoir of Edward Tuckerman, 1817-1886. Read before the National Academy April, 1887. pp. 14, 8vo. Washington: The National Academy.

has been rendered by Dr. Huth in bringing together in one monograph⁹ a concise account of the plants having fruit with hooked or barbed prickles or spines. He makes five classes: (a) those in which the roughness also assists the plant in climbing during growth, as the bedstraws; (b) those from which the seeds are projected, as the *Martynia* and other common kinds in which this property is not always noticed; (c) the rare anchor burs, *e. g.* *Trapa natans*; (d) the boring fruits, such as *Stipa*, *Erodium* and other grasses; and (e) clinging burs, like the stick-tights. Most of the space is devoted to a brief systematic account of all bur-producing plants, 163 genera being mentioned.

NOTES AND NEWS.

"SOME COMMON THISTLES" is the title of an illustrated paper by Prof. L. H. Pammel in *Colman's Rural World* (March 9).

PROFESSOR J. C. LYFORD is giving a course of illustrated botanical lectures before the Worcester (Mass.) Natural History Society.

DR. CHRISTIAN LUERSSEN has been called from the Forest school at Eberswald to be professor of botany and director of the botanic garden at Königsberg.

THE METHOD of bleaching, staining and mounting the unsectioned leaves and sporangia of ferns is described by the careful preparateur, Rev. J. D. King, in the *Microscope* for March.

PROFESSOR BAYLEY BALFOUR has been elected to the chair of botany in Edinburgh University, made vacant by the death of Dr. Dickson. This leaves a vacancy in the botanical department at Oxford.

DR. GRAY'S last writing appears in the *American Journal of Science* for March, being the Botanical Necrology for 1887. The list contains the names of W. E. Tolmie, John Goldie (both of whom died in 1886), Albert Kellogg, William Boott, Ezra Michener, and H. W. Ravenel.

DR. GEORGE L. GOODALE has in the past two months delivered a course of twelve lectures, at the Lowell Institute in Boston, on "Forests and Forest Products." A printed syllabus of each lecture was distributed to the audience. Judging from these synopses and Dr. Goodale's great attractiveness as a lecturer, the course must have been exceedingly interesting.

A PRESUMPTUOUS and unblushingly egotistical article on the germ of the southern cattle plague is given in the March *Microscope* over the signature of Dr. F. K. Billings, "director of the patho-biological laboratory of the State University of Nebraska," laying claim to all honors worth a straw in the study of this subject. If this is the manner in which "the sun of original investigation seems to be rising in the west," we hope for the credit of American science that its rays may be kept under a bushel as much as possible.

⁹ HUTH, DR. ERNST.—Die Klettipflanzen mit besonderer Berücksichtigung ihrer Verbreitung durch Thiere. (Bibliotheca botanica, Heft 9.) 36 pp., 78 wood-cuts, 4°. Cassel: Theodor Fischer, 1887.—4 marks.